

# Mineral Industry Surveys

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#### **ALUMINUM IN APRIL 2006**

Domestic primary aluminum production in April was 190,174 metric tons (t), according to the U.S. Geological Survey. The average daily production rate was 6,339 t, slightly lower than that of the previous month and 10% below the rate for April 2005. The monthly average U.S. market price of primary aluminum ingot increased significantly in April to \$1.237 per pound from \$1.148 per pound in March, according to Platts Metals Week. The American Metal Market buying price range for aluminum used beverage cans (UBCs) also increased during April. The price range began the month at 88–90 cents per pound. On April 11, the price range increased to 89–91 cents per pound; on April 25, the price range increased to 94–96 cents per pound and remained at this level through the end of the month.

# 2005 UBC Recycling Rate

According to data jointly released by the Aluminum Association Inc., the Can Manufacturers Institute, and the Institute of Scrap Recycling Industries Inc., 51.4 billion aluminum beverage cans (680,000 t) were recycled in the United States in 2005. The recycling rate of 52% was an increase of about 1% from the 2004 rate. According to the associations' report, compared with the production of primary aluminum, recycling 40 aluminum beverage cans has the energy-saving equivalent of 1 gallon of gasoline. During 2005, enough aluminum cans were recycled in the United States to conserve the energy equivalent to more than 15 million barrels of oil (Aluminum Association Inc., 2006).

#### U.S. Trade

Total imports for consumption for the first quarter of 2006 were at the same level as those for the comparable period in 2005. Slight decreases in imports of metals and alloys and semifabricated materials were offset by an increase in imports of

aluminum scrap. Canada remained the leading shipper of materials to the United States, supplying almost 55% of total U.S. imports in the first 3 months of 2006, followed by Russia with 11%.

Total aluminum exports in the first quarter of 2006, however, increased 29% compared with exports in the first 3 months of 2005. Exports were higher in all three categories detailed in table 7 and were led by a 48% increase in exports of aluminum scrap. Exports of metal and alloys increased 30%, and exports of semifabricated material increased 10% compared with those for the same period in 2005. China, Canada, and Mexico, in descending order of receipts, were the major recipients of U.S. aluminum materials, accounting for almost 80% of total U.S. exports in the first 3 months of 2006.

#### Undate

The monthly average U.S. market price of primary aluminum ingot increased dramatically in May to \$1.355 per pound. The American Metal Market buying price range for aluminum UBCs increased several times during the first half of the month before declining in stages to a price range that was slightly lower than that at the beginning of the month. On May 2, the price range increased to 96–98 cents per pound; on May 9, it increased to 99–101 cents per pound; and on May 11, the price reached \$1.05 to \$1.07 per pound. On May 16, the UBC price began its downward slide when the price range decreased to \$1.00 to \$1.02 per pound. On May 23, the price range decreased further to 97–99 cents per pound, and on May 31, it decreased to 93–95 cents per pound.

#### Reference Cited

Aluminum Association Inc., 2006, Aluminum can recycling rate rises again: Washington, DC, Aluminum Association Inc. press release, May 16, 3 p.

 $\label{eq:table 1} \text{COMPONENTS OF ALUMINUM SUPPLY}^1$ 

# (Thousand metric tons)

					Impor	ts for consum	ption		
					Metals	Plates,			Total
					and	sheets,		Total	stocks,
	Primary	Seco	ndary recove	ery <sup>2</sup>	alloys,	bars,		new	end of
Period	production	New	Old	Total	crude	etc.	Total	supply <sup>3</sup>	period <sup>4</sup>
2005 <sup>p</sup>	2,481	1,900	1,120	3,020	3,660	1,190	4,850	10,400	1,430
2005:									
April	211	162	95	257	372	104	476	943	1,500
May	214	159	98	257	372	104	476	947	1,520
June	206	153	96	249	324	107	431	886	1,500
July	210	170	96	267	324	104	428	904	1,550
August	208	167	96	262	264	110	374	845	1,510
September	199	157	91	248	282	97	379	827	1,590
October	207	151	95	246	298	94	393	846	1,550
November	204	151	84	236	240	91	330	770	1,440
December	208	143	82	225	299	89	388	821	1,430
January-April	824	652	377	1,030	1,260	396	1,650	3,510	1,500
2006:									
January		159	87	246	348	97	445	888	1,490
February	179	146	85	231	247	87	333	743	1,680
March	198	153	92	245	289	104	393	836	1,480
April	190	145	90	234	NA	NA	NA	NA	NA
January-April	764	603	354	956	NA	NA	NA	NA	NA

<sup>&</sup>lt;sup>p</sup>Preliminary. NA Not available.

<sup>&</sup>lt;sup>1</sup>Data are rounded to no more than three significant digits, except "Primary production"; may not add to totals shown.

<sup>&</sup>lt;sup>2</sup>Metallic recovery from purchased, tolled, or imported scrap, expanded for full coverage of industry.

<sup>&</sup>lt;sup>3</sup>Primary production, secondary recovery, and imports for consumption.

<sup>&</sup>lt;sup>4</sup>Inventory levels reflect total for both U.S. and Canadian producers; data from the Aluminum Association Inc.

TABLE 2 ESTIMATED FULL COVERAGE CONSUMPTION OF AND METALLIC RECOVERY FROM PURCHASED NEW AND OLD ALUMINUM SCRAP  $^{\rm l}$ 

#### (Thousand metric tons)

			Inte	grated	Inde	pendent						
	Secondary smelters		alur	ninum	1	mill		Other				
			companies		fabricators		Foundries		consumers		Total	
	Con-		Con-		Con-		Con-		Con-		Con-	
	sump-	Metal	sump-	Metal	sump-	Metal	sump-	Metal	sump-	Metal	sump-	Metal
Period	tion	recovery	tion	recovery	tion	recovery	tion	recovery	tion	recovery	tion	recovery
2005 <sup>p</sup>	1,740	1,260	812	722	1,010	943	98	87	6	6	3,660	3,020
2005:												
April	146	106	66	59	90	84	8	7	1	1	311	257
May	151	109	69	61	85	80	8	7	1	1	313	257
June	138	103	67	60	84	79	9	8	1	1	299	249
July	141	102	92	83	79	74	8	7	1	1	321	267
August	151	109	77	69	82	77	8	7	(2)	(2)	319	262
September	148	107	65	58	80	75	8	7	(2)	(2)	302	248
October	154	112	55	49	83	78	8	7	(2)	(2)	302	246
November	138	101	62	55	77	72	8	7	(2)	(2)	285	236
December	129	93	63	56	74	69	8	7	(2)	(2)	274	225
January-April	589	426	260	231	364	341	33	29	(2)	(2)	1,250	1,030
2006:	_											
January	138	101	66	59	84	79	8	7	(2)	(2)	297	246
February	133	97	64	56	75	70	8	7	(2)	(2)	280	231
March	144	105	66	58	80	75	8	7	(2)	(2)	298	245
April	140	101	64	57	74	70	8	7	(2)	(2)	287	234
January-April	555	403	260	230	313	294	32	28	2	2	1,160	956

<sup>&</sup>lt;sup>p</sup>Preliminary.

TABLE 3 CONSUMPTION OF AND RECOVERY FROM PURCHASED NEW AND OLD ALUMINUM SCRAP IN APRIL  $2006^1$ 

#### (Metric tons)

			Calculated			
	Consu	mption	metallic	recovery		
	Tabulated	Estimated	Tabulated	Estimated		
	reports	full coverage	reports	full coverage		
Secondary smelters	116,000	140,000	84,000	101,000		
Integrated aluminum companies	64,100	64,100	56,600	56,600		
Independent mill fabricators	62,100	74,500	58,000	69,600		
Foundries	6,590	7,910	5,790	6,950		
Other consumers	355	426	355	426		
Total	250,000	287,000	205,000	234,000		

<sup>&</sup>lt;sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>&</sup>lt;sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>&</sup>lt;sup>2</sup>Less than ½ unit.

 ${\it TABLE~4}$  PURCHASED AND TOLL-TREATED ALUMINUM-BASE SCRAP AND SWEATED PIG IN APRIL  $2006^1$ 

		Ap	ril		January-	-April <sup>2</sup>
	Stocks,	Net	Melted or	Stocks,	Net	Melted or
	opening	receipts3	consumed	closing	receipts3	consumed
New scrap:						
Extrusion	26,200	55,400	55,900	25,600	246,000	245,000
Can stock clippings	776	19,600	19,100	1,230	76,100	77,000
Other wrought sheet/clippings	7,630 <sup>r</sup>	25,400	25,500	7,570	102,000	102,000
Casting	1,210	6,580	7,010	783	27,200	28,200
Borings and turnings	7,080 <sup>r</sup>	11,400	11,000	7,480	45,400	45,700
Dross and skimmings	3,810 <sup>r</sup>	37,100	37,200	3,760	143,000	143,000
Total new scrap	46,700 <sup>r</sup>	155,000	156,000	46,500	640,000	642,000
Old scrap:						
Used castings	4,900	16,100	16,000	5,080	62,000	62,700
Used extrusion	137	295	295	137	1,180	1,180
Used cans (shredded, loose, baled)	1,550 <sup>r</sup>	60,200	59,900	1,850	232,000	231,000
Other wrought products	3,930	5,900	5,900	3,930	24,800	24,800
Fragmentized shredder (auto shredder)	3,350	11,800	11,300	3,840	47,000	47,000
Total old scrap	13,900 <sup>r</sup>	94,300	93,300	14,800	367,000	367,000
Sweated pig	289	703	703	289	2,900	2,900
Total all classes	60,800 r	250,000	250,000	61,600	1,010,000	1,010,000

rRevised.

<sup>&</sup>lt;sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>&</sup>lt;sup>2</sup>Includes revised data from previous month(s).

<sup>&</sup>lt;sup>3</sup>Includes data on imported aluminum-base scrap.

TABLE 5 ALUMINUM ALLOYS PRODUCED AT SECONDARY SMELTERS IN THE UNITED STATES FOR  $2006^{1,2}\,$ 

		Apr	il		January	-April <sup>3</sup>
	Stocks,		Net	Stocks,		Net
	opening	Production	shipments	closing	Production	shipments
Die-cast alloys:						
13% Si, 360, etc. (0.6% Cu, max.)	5,110	1,170	1,310	4,970	4,660	5,130
380 and variations	2,190	14,700	14,100	2,800	60,500	61,600
Sand and permanent mold:						
95/5 Al-Si, 356, etc. (0.6% Cu, max.)	1,050	1,840	1,870	1,020	7,410	7,400
No. 319 and variations	3,690	5,650	5,670	3,670	24,900	23,700
F-132 alloy and variations	682	1,710	1,720	673	6,870	7,100
Al-Zn alloys	111	163	168	106	680	671
Al-Si alloys (0.6% to 2.0% Cu)	39	46	46	39	183	183
Al-Cu alloys (1.5% Si, max.)	45	325	325	45	1,300	1,300
Other <sup>4</sup>	7,050	5,490	5,610	6,930	23,400	22,000
Wrought alloys:						
Extrusion billets	9,230	18,900	18,700	9,430	80,000	80,000
Total all alloys	29,200	50,000	49,500	29,700	210,000	209,000
Less:						
Primary aluminum consumed	XX	8,130	XX	XX	40,700	XX
Primary silicon consumed	XX	1,900	XX	XX	10,300	XX
Other alloying ingredients consumed	XX	564	XX	XX	3,390	XX
Net metallic recovery from aluminum						
scrap and sweated pig consumed in						
production of secondary aluminum						
ingot <sup>5</sup>	XX	39,400	XX	XX	156,000	XX

XX Not applicable.

<sup>&</sup>lt;sup>1</sup>Excludes integrated aluminum companies.

<sup>&</sup>lt;sup>2</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>&</sup>lt;sup>3</sup>Includes revised data from previous months.

<sup>&</sup>lt;sup>4</sup>Includes alloys No. 12, Al-Mg, Al-Si-Cu-Ni, aluminum-base hardeners, variations of these alloys, plus other aluminum alloys.

<sup>&</sup>lt;sup>5</sup>No allowance made for melt-loss of primary aluminum and alloying ingredients.

 $\label{eq:table 6} \text{U.s. IMPORTS FOR CONSUMPTION OF ALUMINUM IN MARCH 2006}^1$ 

	Metals and al	loys, crude	Plates, sheets	s, bars, etc.	Scra	ap	Total	
		January-		January-		January-		January-
Country	March	March	March	March	March	March	March	March
Argentina	1,680	14,800	20	20			1,700	14,800
Australia	597	11,700	8	30	20	268	626	12,000
Bahrain	2,440	9,210	1,130	3,650			3,570	12,900
Belgium	17	17	529	1,720			546	1,740
Brazil	20,900	38,800	1,660	6,430	19	19	22,500	45,200
Canada	163,000	492,000	46,200	133,000	29,400	84,500	238,000	710,000
China	2,170	11,300	10,700	29,200	2	2	12,800	40,500
France	43	104	459	1,390	18	18	519	1,510
Germany	147	2,860	13,300	30,500	30	89	13,500	33,500
Hungary			146	525			146	525
Italy		64	225	723			225	787
Japan	21	73	1,900	5,050	67	149	1,990	5,270
Korea, Republic of	20	72	259	613	(2)	(2)	279	685
Mexico	84	202	1,770	4,650	11,600	31,400	13,400	36,300
Netherlands	72	258	182	485		92	254	835
Norway			39	78			39	78
Russia	39,500	135,000	3,970	8,690	2,460	2,670	46,000	146,000
South Africa	7,990	25,200	5,620	14,200			13,600	39,500
Spain	23	48	133	268			157	315
Sweden	612	612	427	1,470			1,040	2,090
Switzerland	827	1,050	417	1,300			1,240	2,350
Tajikistan		25,700						25,700
United Arab Emirates	9,780	29,800					9,780	29,800
United Kingdom	18,400	29,100	268	757	341	863	19,100	30,700
Venezuela	9,980	40,200	614	4,710	157	556	10,800	45,400
Other	11,000	15,800	14,100	38,100	3,700	10,000	28,800	64,000
Total	289,000	884,000	104,000	288,000	47,800	131,000	441,000	1,300,000

<sup>--</sup> Zero.

Source: U.S. Census Bureau.

 $<sup>^{1}\</sup>mbox{Data}$  are rounded to no more than three significant digits; may not add to totals shown.

 $<sup>^2</sup> Less than \frac{1}{2}$  unit.

 $\label{eq:table 7} \text{U.S. EXPORTS OF ALUMINUM IN MARCH 2006}^1$ 

	Metals and al	loys, crude	Plates, sheets	s, bars, etc.	Scra	ıp	Total	
		January-		January-		January-		January-
Country or territory	March	March	March	March	March	March	March	March
Australia	18	50	98	298	11	11	127	359
Azerbaijan				2				2
Belgium	89	355	453	1,840			543	2,190
Brazil	14	50	428	1,130		49	442	1,230
Canada	12,100	35,800	43,700	121,000	11,900	31,600	67,700	189,000
China	126	1,160	2,240	6,120	71,400	189,000	73,800	196,000
Czech Republic	(2)	(2)	18	25			18	26
Dominican Republic	7	14	11	72			17	86
France	2	19	1,400	3,530	2	2	1,400	3,550
Germany	43	66	989	2,680	11	80	1,040	2,820
Hong Kong	326	480	751	2,120	2,230	5,210	3,310	7,810
India	30	80	43	120	789	1,850	862	2,050
Israel	95	265	203	725			299	990
Italy		2	300	940			300	942
Japan	1,110	1,630	1,850	4,520	4,940	13,500	7,900	19,700
Korea, Republic of	84	265	1,540	3,480	12,000	33,400	13,600	37,200
Malaysia	2	3	302	466	524	1,310	828	1,780
Mexico	15,400	54,100	25,800	69,100	9,680	23,000	50,900	146,000
Netherlands	8	40	36	137		40	44	217
Russia	6	6	6	28			11	33
Saudi Arabia			3,740	6,840		(2)	3,740	6,840
Singapore	2	18	112	409			114	427
Spain	3	8	200	367			204	375
Sweden	1	1	8	26			9	27
Taiwan	63	75	922	2,320	5,420	12,600	6,400	15,000
Thailand	264	418	988	2,580	830	1,690	2,080	4,680
Ukraine			1	1			1	1
United Kingdom	18	68	2,040	5,570	7	104	2,060	5,740
Venezuela		13	258	383	1	1	258	397
Other	610	1,510	3,680	10,400	4,830	12,300	9,120	24,200
Total	30,500	96,500	92,100	248,000	125,000	326,000	247,000	670,000

<sup>--</sup> Zero.

Source: U.S. Census Bureau.

<sup>&</sup>lt;sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>&</sup>lt;sup>2</sup>Less than ½ unit.